

TROPICAL RAINFALL MEASURING MISSION

January 8, 2001 – January 14, 2001

DOY 008 - 014

Day of Mission 1138 - 1144

TRMM MISSION OPERATIONS

- TRMM is flying in the -X Forward direction as of December 28th (00-363) at 04:36:47z.
- Yaw maneuver #52 is scheduled for January 28th (01-028).
- Delta-V #268 is scheduled for January 17th (01-017), using the ISP thrusters.
- The Beta angle range for 01-015 to 01-021 is -55.2° to -30.0° .
- The next Monthly Status Review (MSR) is scheduled for January 31st (01-031).
- The next Flight Software CCB meeting is scheduled for January 23rd (01-023).
- The next End of Life Planning meeting is scheduled for January 24th (01-024).

TRMM SUBSYSTEM OPERATIONS

Attitude Control System (ACS)

01-009 (Tuesday, January 9th, 2001)

Delta-V maneuver #266 was successfully conducted at 16:17:08z and 17:02:53z for durations of 33.500 and 21.500 seconds respectively, using the ISP thrusters. The off-modulation of the -Pitch thruster (#6) for burn 1 and 2 was 35.4% and 37.2% (64.6% and 62.8% on time). The remaining fuel is 472.608 kg, and the final apogee and perigee height is 354.85 km x 347.48 km.

01-013 (Saturday, January 13th, 2001)

Delta-V maneuver #267 was successfully conducted at 14:53:40z and 15:39:16z for durations of 39.000 and 29.000 seconds respectively, using the ISP thrusters. The off-modulation of the -Pitch thruster (#6) for burn 1 and 2 was 39.7% and 41.0% (60.3% and 59.0% on time). The remaining fuel is 471.038 kg, and the final apogee and perigee height is 354.85 km x 347.58 km.

Flight Data System (FDS)/Command & Data Handling (C&DH)

The UTCF remains at 31535996.831959 seconds. The current drift value is -734.0 μ s. The FS offset remains x'7ae' with a current drift rate of -3.99 μ s/hr.

Reaction Control Subsystem (RCS)

The RCS subsystem performed nominally during this period. See the ACS section for specific Delta-V information.

Power Subsystem

The Power subsystem performed nominally during this period.

Electrical Subsystem

The Electrical subsystem performed nominally during this period.

Thermal Subsystem

The Thermal subsystem performed nominally during this period.

Deployables Subsystem

The Deployables subsystem performed nominally during this period.

RF/Communications Subsystem

The RF/Communications subsystem performed nominally during this period.

SPACECRAFT INSTRUMENTS

CERES

CERES was powered on again on December 14th (00-349). CERES remains in the same condition, as it was when it was powered off during the PSIB Anomaly. The Data Acquisition Processor (DAP) does not produce valid telemetry (the telemetry is either railed at the high or low values), and the DAA +15V converter is no longer in voltage regulation. A decision has yet to be made as to whether or not to permanently power off the instrument.

LIS

The LIS instrument performed nominally during this period.

PR

The PR instrument performed nominally during this period. The list of Internal Calibration times over Australia in which PR was not radiating is shown below:

2001-008/21:40:38z - 21:42:48z	2001-009/13:58:30z - 14:03:36z
2001-009/20:29:12z - 20:31:26z	2001-010/20:52:02z - 20:54:11z
2001-011/13:10:19z - 13:13:18z	2001-011/19:40:36z - 19:42:50z
2001-012/20:03:12z - 20:05:19z	2001-013/18:51:36z - 18:53:48z
2001-014/11:11:04z - 11:14:16z	2001-014/17:40:22z - 17:41:41z
2001-014/19:14:26z - 19:16:32z	

TMI

The TMI instrument performed nominally during this period.

VIRS

The VIRS instrument performed nominally during this period.

GROUND SYSTEM

Work continues to configure the GSFC Building 14 SOTA-5 as a System Software test string and a backup telemetry, command, and control facility for the Building 32 TRMM MOC. Several shadow events have been successfully taken. Forward link capability will be tested again in early February following the next Shuttle mission.

01-010 (Wednesday, January 10th 2001)

No problems occurred with the scheduled UPS-1 Power Outage. The next schedule outage is January 24th, which will affect all equipment powered by UPS-2.

Event Reports

No new events occurred during this period.

Generic Late Acquisition Reports (for TTRs 19639)

No new Generic Late Acquisition occurred during this period.

New Anomalies

No new anomalies occurred during this period.

Recurring/Open Anomalies

No open anomalies recurred during this period.

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